UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,412	07/11/2002	Tse-Hong Wu	MTKP0005USA	7461

27765	7590	12/15/2004	EXAMINER

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EXAMINER
GANDHI, DIPAKKUMAR B

ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/064,412	WU, TSE-HONG
	Examiner	Art Unit	
	Dipakkumar Gandhi	2133	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _11 July 2002_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-15_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _11 July 2002_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _6/15/2004_.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Objections

1.   Claims 1-15 are objected to because of the following informalities: Claims 1-15 should include

computer generated method. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for

the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.   Claims 1, 2, 6, 7, 8, 9, 11, 12, 13, 14, 15 are rejected under 35 U.S.C. 102(e) as being anticipated

by Park (US 6,493,301 B1).

Park anticipates claim 1.

Park teaches a writing method for CD-MRW comprising: (a) obtaining data to be written to a CD-MRW

substrate; (b) determining a write packet range of the data; (c) identifying any defect blocks in the write

packet range; (d) identifying breakpoints in the write packet range based on the defect blocks; (e)

splitting the write packet range into at least two sub-ranges based on the breakpoints; and (f) individually

writing each sub-range (figure 1, 2A, 4, col. 1, lines 36-42, col. 5, lines 8-16, Park).

- •   Park anticipates claim 2.

Park teaches the method wherein the sub-ranges comprises: a continuous packet range located in a data

area (DA), the continuous packet range having no defect blocks; and a defect packet range having a

defect block; wherein different sub-ranges are processed by different writing procedures (figure 2A, 2B,

col. 2, lines 16-24, Park).

- •   Park anticipates claim 6.

Park teaches the method wherein the writing procedure of the defect packet range comprises: (a) reading a replace packet in a spare area (SA); (b) replacing corresponding write blocks in the replace packet to generate a modified replace packet; and (c) writing the modified replace packet back to the SA (figure 2A, 2B, col. 2, lines 16-24, Park).

- Park anticipates claim 7.

Park teaches the method wherein the writing method further comprises: identifying any SAs in the write packet range; and identifying the breakpoints based on the SAs in the write packet range (figure 1, 2A, col. 1, lines 36-42, Park).

- Park anticipates claim 8.

Park teaches the method wherein the breakpoint indicates a packet having a defect block (figure 2A, col. 2, lines 5-8, Park).

- Park anticipates claim 9.

Park teaches the method wherein the breakpoint is an SA (figure 1, 2A, col. 1, lines 36-42, Park).

- Park anticipates claim 11.

Park teaches the method wherein the breakpoint is a packet having a defect block (figure 2A, col. 2, lines 5-8, Park).

- Park anticipates claim 12.

Park teaches a reading method for CD-MRW comprising: (a) determining a read block range of the data; (b) identifying any defect blocks in the read block range; (c) identifying breakpoints in the read block range based on the defect blocks; (d) splitting the read block range into at least two sub-ranges based on the breakpoints; and (e) individually reading each sub-range (figure 2A, 2B, col. 2, lines 16-24, Park).

- Park anticipates claim 13.

Park teaches the method wherein the sub-ranges comprises: a continuous block range located in a DA, the continuous block range having no defect blocks; and a defect block range having a defect block; wherein different sub-ranges are processed by different reading procedures (figure 1, 2A, 2B, col. 1, line 36-42, col. 2, lines 4-24, Park).

- Park anticipates claim 14.

Park teaches the method wherein the reading procedure of the continuous block range comprises: (a)

reading a block in the continuous block range; and (b) transferring data of the block to a host computer

(figure 5, col. 4, lines 32-33, Park).

- Park anticipates claim 15.

Park teaches the method wherein the reading procedure of the defect block range comprises: (a) reading

a replace block in an SA; and (b) transferring data of the replace block to a host computer (figure 2A, 2B,

col. 2, lines 16-24, Park).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966),

that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are

summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or
nonobviousness.

6.   Claims 3, 5, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US

6,493,301 B1) as applied to claim 1, 2 above, and further in view of Charnell et al. (US 2002/0029357

A1).

As per claim 3, Park substantially teaches the claimed invention described in claim 2 (as rejected above).

However Park does not explicitly teach the specific use of the method wherein the continuous packet

range further comprises: a complete packet range having wholly continuous packets; and a partial packet

range; wherein different continuous packet ranges are processed by different writing procedures.

Charnell et al. in an analogous art teach that grey packets are like mini arrays, which are created and destroyed on demand. They are handled as complete packets (page 44, paragraph 962, Charnell et al.). Charnell et al. also teach that a summary of some of the main functions of the Grey Packet Manager is presented in the table below. In the table, each function is shown underlined; the steps of that function follow the function itself. Each step is placed in one or two of three columns ("Full Packet", "Partial Packet" or "Empty Packet"), (page 46, paragraph 1053, Charnell et al.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park's patent with the teachings of Charnell et al. by including an additional step of using the method wherein the continuous packet range further comprises: a complete packet range having wholly continuous packets; and a partial packet range; wherein different continuous packet ranges are processed by different writing procedures.

This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that it would provide the opportunity to apply different writing process for a range including a partial packet.

- As per claim 5, Park and Charnell et al. teach the additional limitations.

Charnell et al. teach the method wherein the writing procedure of the partial packet range comprises: (a) reading an original partial packet; (b) replacing corresponding write blocks in the original partial packet to generate a write packet; and (c) writing the entire write packet back over the original partial packet (page 46, paragraph 1066, Charnell et al.).

- As per claim 10, Park and Charnell et al. teach the additional limitations.

Charnell et al. teach the method wherein the breakpoint is a partial packet (page 46, paragraph 1053, Charnell et al.).

7.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US 6,493,301 B1) and Charnell et al. (US 2002/0029357 A1) as applied to claim 3 above, and further in view of Hashimoto (US 6,108,289).

As per claim 4, Park and Charnell et al. substantially teaches the claimed invention described in claim 3 (as rejected above). However Park and Charnell et al. do not explicitly teach the specific use of the

method wherein the writing procedure of the complete packet range comprises: overwriting each packet of the complete packet range directly.

Hashimoto in an analogous art teaches that when information of the entire packet is overwritten, the information is directly overwritten on the optical disc (col. 3, lines 45-47, Hashimoto).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park's patent with the teachings of Hashimoto by including an additional step of using the method wherein the writing procedure of the complete packet range comprises: overwriting each packet of the complete packet range directly.

This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that it would provide the opportunity to write the information on the optical disc without using buffer and a time for reading the information and storing the information in the buffer can be eliminated.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dipakkumar Gandhi whose telephone number is 571-272-3822. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dipakkumar Gandhi
Patent Examiner

Guy J. LAMARRE
PRIMARY EXAMINER